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المستودع الرقمي للمدرسة العليا للري



The title (العنوان):

Study of the spatial and temporal variability of rainfall in the Middle and Lower Cheliff (Algeria)

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كل الحقوق محفوظة للمدرسة الوطنية العليا للري.

Abstract:

The purpose of this study is to identify homogeneous rainfall regions and to study the spatial and temporal variability of rainfall in the Cheliff basin using the regional vector method and the statistical approach (Pettitt test, Lee Heghinian test and Hubert segmentation) and the geostatistic approach (inverse distance weighting method). In terms of results, the regional vector method highlighted six (6) homogeneous rainfall regions. The downward trend occurred in the study area in 1972, affecting a few coastal stations. In 1976, this decline extended to the South West and throughout the coastal region. In 1980, the drop covered the entire basin. This decline has resulted in an estimated deficit of 30 % on average in the eastern region, the coastal region and the Mina. However, the central part of the basin experienced a 20 % decrease compared to the period before the break (1968–1980). The same spatial irregularity in rainfall was observed during the pre-break and post-break periods (1981–2010). On the other hand, throughout the basin, the areas corresponding to the rainfall ranges identified during the 1968–1980 period experienced an average decrease of 100 mm during the post-break period, except in the eastern region, where the decrease exceeded 200 mm.

Key words: Temporal variability ; spatial ; Lower Cheliff (Algeria)

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